

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

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in its capacity as elected Office

<b>Date of mailing (day/month/year)</b> 18 May 2000 (18.05.00)	<b>Applicant's or agent's file reference</b> 34415/194699
<b>International application No.</b> PCT/US99/21333	<b>Priority date (day/month/year)</b> 16 September 1998 (16.09.98)
<b>International filing date (day/month/year)</b> 16 September 1999 (16.09.99)	
<b>Applicant</b> ALESSI, George, H. et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
 28 March 2000 (28.03.00)

☐ in a notice effecting later election filed with the International Bureau on:  
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2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

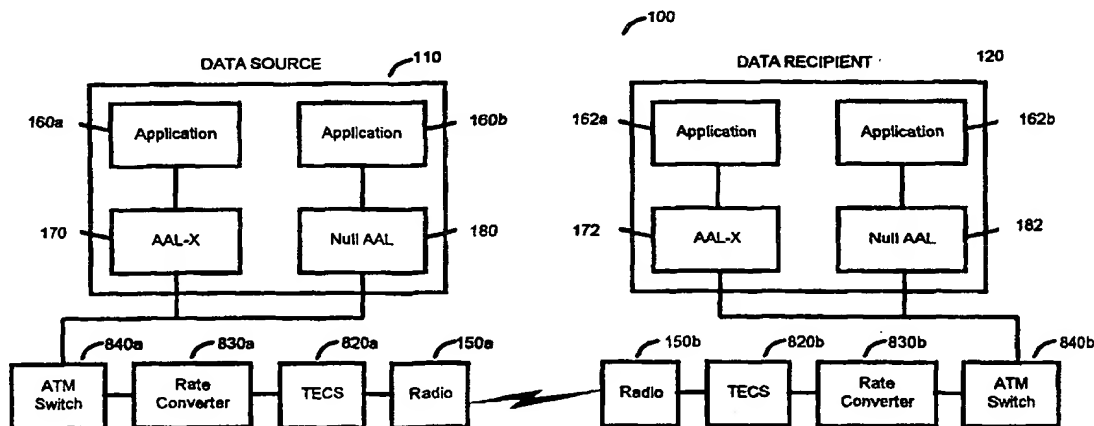
<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b> C. Villet Telephone No.: (41-22) 338.83.38
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			(43) International Publication Date: 23 March 2000 (23:03.00)
(21) International Application Number: PCT/US99/21333 (22) International Filing Date: 16 September 1999 (16.09.99) (30) Priority Data: 60/100,618 16 September 1998 (16.09.98) US (71) Applicant (for all designated States except US): SCIENTIFIC RESEARCH CORPORATION [US/US]; Suite 400 South, 2300 Windy Ridge Parkway, Atlanta, GA 30339 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): ALESSI, George, H. [US/US]; 230 Lochland Circle, Roswell, GA 30075 (US). RAY, Charles, G. [US/US]; 413 Eagle Ridge Trail, Canton, GA 30114 (US). AKYILDIZ, Ian [US/US]; 525 St. Regis Drive, Alpharetta, GA 30022 (US). JENSEN, Mark [US/US]; 5858 Bridgemont Place, Acworth, GA 30101 (US). SMITH, Guy [US/US]; 880 Windsor Trail, Roswell, GA 30076 (US). (74) Agents: PRATT, John, S. et al.; Kilpatrick Stockton LLP, Suite 2800, 1100 Peachtree Street, Atlanta, GA 30309-4530 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> With international search report.	

(54) Title: SYSTEMS AND METHODS FOR ASYNCHRONOUS TRANSFER MODE AND INTERNET PROTOCOL



(57) Abstract

A protocol-independent error-control system includes several components (840a, 830a, 820a, 150b, 820b, 830b, 840b) that assist in providing more reliable data transmission between endpoints (110, 120): 1) an ATM adaptation layer that supports quality-critical and time-critical data; 2) a rate converter that uses a priority scheme to adjust the data rate for different types of data; and 3) an error-control subsystem that implements a data link protocol optimized for error-prone links, and capable of recognizing traffic from many kinds of network sources. The error-control subsystem may be used alone or in combination with the ATM adaptation layer (170, 172, 180, 182) and/or the rate converter (830).

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US99-21333

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(6) : H04J 3/16, 3/22, 3/24

US CL : 370/466, 468, 473, 474, 395; 714/746, 748, 749, 750

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 370/466, 468, 473, 474, 395; 714/746, 748, 749, 750

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
rate converter, atm layers, arq, error, encoder, aal, crc, tag, qos

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	US 5,844,897 A (ASAMIZUYA) 01 December 1998, see entire document.	1-39
Y,E	US 5,956,344 A (COLE) 21 September 1999, col.3, line 8 to col.7, line 67.	1-39
Y,P	US 5,917,828 (THOMPSON) 29 June 1999, col.3, line 65 to col.9, line 67.	1-39



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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*E* earlier document published on or after the international filing date	*Y* document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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16 NOVEMBER 1999

Date of mailing of the international search report

27 DEC 1999

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